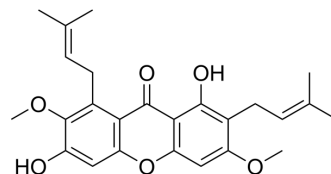


## beta-Mangostin

<b>Cat. No.:</b>	HY-N0941												
<b>CAS No.:</b>	20931-37-7												
<b>Molecular Formula:</b>	C <sub>25</sub> H <sub>28</sub> O <sub>6</sub>												
<b>Molecular Weight:</b>	424.49												
<b>Target:</b>	Apoptosis; Bacterial; Parasite												
<b>Pathway:</b>	Apoptosis; Anti-infection												
<b>Storage:</b>	<table border="0"> <tr> <td>Powder</td> <td>-20°C</td> <td>3 years</td> </tr> <tr> <td></td> <td>4°C</td> <td>2 years</td> </tr> <tr> <td>In solvent</td> <td>-80°C</td> <td>2 years</td> </tr> <tr> <td></td> <td>-20°C</td> <td>1 year</td> </tr> </table>	Powder	-20°C	3 years		4°C	2 years	In solvent	-80°C	2 years		-20°C	1 year
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	-20°C	1 year											



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 25 mg/mL (58.89 mM; Need ultrasonic)																			
	<table border="1"> <thead> <tr> <th rowspan="2">Concentration</th> <th colspan="3">Mass</th> </tr> <tr> <th>1 mg</th> <th>5 mg</th> <th>10 mg</th> </tr> </thead> <tbody> <tr> <td><b>1 mM</b></td> <td>2.3558 mL</td> <td>11.7788 mL</td> <td>23.5577 mL</td> </tr> <tr> <td><b>5 mM</b></td> <td>0.4712 mL</td> <td>2.3558 mL</td> <td>4.7115 mL</td> </tr> <tr> <td><b>10 mM</b></td> <td>0.2356 mL</td> <td>1.1779 mL</td> <td>2.3558 mL</td> </tr> </tbody> </table>	Concentration	Mass			1 mg	5 mg	10 mg	<b>1 mM</b>	2.3558 mL	11.7788 mL	23.5577 mL	<b>5 mM</b>	0.4712 mL	2.3558 mL	4.7115 mL	<b>10 mM</b>	0.2356 mL	1.1779 mL	2.3558 mL
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Please refer to the solubility information to select the appropriate solvent.																				
<b>In Vivo</b>	<ol style="list-style-type: none"> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline Solubility: ≥ 2.5 mg/mL (5.89 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (5.89 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil Solubility: ≥ 1.25 mg/mL (2.94 mM); Clear solution</li> </ol>																			

### BIOLOGICAL ACTIVITY

<b>Description</b>	beta-Mangostin (β-Mangostin) is a xanthone compound present in <i>Cratoxylum arborescens</i> , with antibacterial and antimalarial activities. beta-Mangostin exhibits antimycobacterial activity against <i>Mycobacterium tuberculosis</i> with an MIC of 6.25 μg/mL. beta-Mangostin possesses in vitro antimalarial activity against <i>Plasmodium falciparum</i> , with an IC <sub>50</sub> of 3.00 μg/mL. beta-Mangostin has potent anticancer activity against various cancers (such as hepatocellular carcinoma, leukaemic) [1][2][3][4].
<b>IC<sub>50</sub> &amp; Target</b>	Plasmodium

## In Vitro

beta-Mangostin activates the intrinsic apoptosis pathway through reactive oxygen species with downregulation of the HSP70 gene in the HL60 cells associated with a G0/G1 cell-cycle arrest<sup>[2]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## CUSTOMER VALIDATION

- Acta Pharm Sin B. 2021 Jan;11(1):143-155.

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## REFERENCES

- [1]. Chien-Feng Huang, et al.  $\beta$ -mangostin suppresses human hepatocellular carcinoma cell invasion through inhibition of MMP-2 and MMP-9 expression and activating the ERK and JNK pathways. *Environ Toxicol*. 2017 Nov;32(11):2360-2370.
- [2]. Fatima Abdelmutaal Ahmed Omer, et al. Beta-mangostin from *Cratoxylum arborescens* activates the intrinsic apoptosis pathway through reactive oxygen species with downregulation of the HSP70 gene in the HL60 cells associated with a G0/G1 cell-cycle arrest. *Tumour Biol*. 2017 Nov;39(11):1010428317731451.
- [3]. K Likhitwitayawuid, et al. Antimalarial xanthenes from *Garcinia cowa*. *Planta Med*. 1998 Feb;64(1):70-2.
- [4]. Sunit Suksamrarn, et al. Antimycobacterial activity of prenylated xanthenes from the fruits of *Garcinia mangostana*. *Chem Pharm Bull (Tokyo)*. 2003 Jul;51(7):857-9.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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